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### Remarks

The related application information on page 1 of the specification has been relocated to follow the title and updated to include a cross-reference and priority claim to Application Serial No. 08/382,293, filed February 1, 1995 (see also the above-mentioned Petition).

Claim 45 has been amended and new claims 48-53 have been added as shown above. Support for the claim amendment and new claims may be found in the specification at, e.g., page 3, lines 4-6, page 50, line 7 through page 54, line 2 and in original claims 36-42. Following entry of this amendment, claims 1-35 and 37-53 will be pending in this application, with claims 1-35, 37, 43 and 44 having been withdrawn from consideration.

### Objection to Claims 38-42

Claims 38-42 were objected to on grounds that these claims "*do not depend from a preceding claim*". When originally submitted, claims 38-42 did depend from a preceding claim. Their dependency was altered in an amendment filed November 3, 2003. The present claim dependency is however permissible and in accordance with long-standing USPTO practice. Claims 38-42 should merely be renumbered by the Examiner upon allowance, see the last paragraph of MPEP §608.01(n)(IV):

*"During prosecution, the order of claims may change and be in conflict with the requirement that dependent claims refer to a preceding claim. Accordingly, the numbering of dependent claims and the numbers of preceding claims referred to in dependent claims should be carefully checked when claims are renumbered upon allowance."*

Applicants accordingly request withdrawal of this objection.

### Rejections Under 35 U.S.C §112, Second Paragraph

Claims 38-40 and 45-47 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite on grounds, *inter alia*, that:

*"The term "substantially the same" is indefinite as the specification does not provide a definition to the metes and bounds of the phrase. In order to determine infringement of the present claims, one necessarily would need to determine with a reasonable*

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*degree of certainty the scope of the phrase "substantially the same." Applicant has failed to provide any such guidance and, accordingly, this phrase renders the scope of the claims unclear." (see the Office Action at page 2, numbered paragraph 4).*

Reconsideration is requested. Applicants note at the outset that claims 41 and 42 are worded somewhat similarly to claim 40 but have not been rejected under 35 U.S.C. § 112. In any event, Applicants' specification provides the requested guidance. For example, the text at page 49, line 10 through page 51, line 18 discusses untreated (*viz.*, unused), acid-etched and restored tiles and compares their elemental composition at the tile surface and in the tile core. As stated at page 51, lines 7-10, a restored tile surface had substantially the same elemental composition as the core of a new, untreated tile. As stated at page 51, lines 1-7, an acid etch treatment "significantly reduced the amount of hard particles (silicon) in the quarry tile, by reducing them from 51% to 39% of the tiles composition". Those having ordinary skill in the art will understand this to mean that the floor surface of the acid-etched tile did not have substantially the same elemental composition as the core of a new, unused tile. Also, the text at page 51, lines 12-18 discusses the aluminum and silicon content at the surface and core of untreated tiles. Those having ordinary skill in the art will understand this to mean that the floor surface of a new, unused tile does not have substantially the same elemental composition as the core of a new, unused tile. Finally, those having ordinary skill in the art will understand that determining if a tile surface has substantially the same elemental composition as the core of a new, unused tile may depend to some extent on the precision and type of measurement techniques employed, and on normal production variations that may arise when making tiles, and that the chosen claim language adequately defines the claimed invention.

Claims 38-40 and 45-47 were also rejected on grounds, *inter alia*, that:

*"The phrase "new, untreated tile" is considered to be indefinite, since it is confusing and unclear. The present claims do not require any "treatment" of the claimed tiles and it is unclear how, or if, they differ from "new, untreated tile." (see the Office Action at page 2, numbered paragraph 5).*

Reconsideration is requested in view of the above amendment to claim 45, in which the word "untreated" has been replaced by the word "unused". Those having ordinary skill in the art

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will readily understand the meaning of an "unused" tile, and will be aided by applicants' specification, e.g., at page 3, lines 4-19.

Claims 38-40 and 45-47 were also rejected on grounds, *inter alia*, that:

*"The term "small" is also a relative term, applicant does not define in the originally filed application what "small" means." (see the Office Action at page 2, numbered paragraph 6).*

Reconsideration is requested in view of the above amendment to claim 45, in which the phrase "small peaks and valleys" has been replaced by the phrase "microscopic peaks". Those having ordinary skill in the art will readily understand the meaning of the recited "microscopic peaks", and will be aided by applicants' specification, e.g., at page 3, lines 4-19.

#### **Rejection of Claims 38-42 and 45-47**

##### **under 35 U.S.C §102(b) and Gillice**

Claims 38-42 and 45-47 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,847,688 (Gillice), on grounds, *inter alia*, that:

*"Gillice teaches slip-resistant flooring tile, such as ceramic tiles (abstract, for instance). It is the Examiner's position that such tiles possess "small peaks and valleys," as presently claimed, since ceramics, by their very nature, are not perfectly smooth. This relative phrase is not seen to distinguish over the ceramic tiles of Gillice.*

*"Regarding the phrase "substantially the same," with respect to the composition of the tile relative to the core, the Examiner notes that the word "substantially" is broad and applicant has failed to provide any definition of the scope of this term in the specification. Thus, it is the Examiner's position that the tiles of Gillice have "an elemental composition substantially the same as that of the core of a new, untreated tile." Moreover, the Examiner notes that the present claims do not require any treatment of the claimed tiles and, therefore, read on untreated tiles. Clearly then, such tiles have an elemental composition as presently claimed." (see the Office Action at page 3, numbered paragraph 7).*

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Reconsideration is requested. Applicants note at the outset that the claims should not be evaluated by comparing *"the composition of the tile relative to the core"* and should not be evaluated by assessing whether the tiles in a reference have *"an elemental composition substantially the same as that of the core of a new, untreated tile."* Applicants' rejected claims 38-42 and 45-47 recite a "tile floor" whose "tiles have a floor surface that ... has an elemental composition substantially the same as that of the core" of a new, unused tile (emphasis added). Thus the elemental composition at a tile "floor surface" should be compared to the elemental composition of the "core of a new, unused tile". This is not a comparison of the elemental composition of a "tile" and "tile core".

Gillice describes an acid etching procedure for roughening a ceramic tile floor. Gillice does not discuss elemental compositions, let alone the elemental composition of the unetched or acid-etched floor surface or in the core of a new, unused tile. However, applicants' specification discusses Gillice (see e.g., page 4, line 8 through page 5, line 8). Applicants show that the elemental composition at the floor surface of an acid-etched tile and in the core of a new, unused tile are not substantially the same (see e.g., page 51, lines 1-4 and Table I at page 50). Applicants also show that the elemental composition at the floor surface of a tile treated using applicants' method is substantially the same as that of the core of a new, unused tile (see e.g., page 51, lines 8-11 and Table I at page 50).

For similar reasons, applicants' rejected claims 38-42 and 45-47 do not "read on untreated tiles". Applicants show that the elemental composition at the floor surface of an untreated (unused) tile is not substantially the same as that of the core of a new, unused tile (see e.g., page 51, lines 12-18 and Table I at page 50).

The Office Action also asserted that:

*"Regarding claim 38, as noted by applicant in the present application "ceramic tile," such as those disclosed by Gillice, are also referred to as "quarry tile" (specification at page 1, lines 18-19, for instance.) Therefore, it is the Examiner's position that Gillice teaches "quarry tile" as recited in claim 38."* (see the Office Action at page 4, numbered paragraph 7).

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Reconsideration is requested in view of the arguments already given above. Gillice does not teach treated or untreated quarry tiles having the characteristics recited in claim 45 from which claim 38 depends.

The Office Action also asserted that:

*"With respect to claims 46 and 47, since the recited compositional ranges are merely descriptive of conventional quarry tile, such as those disclosed by Gillice, it is the Examiner's position that Gillice anticipates claims 46 and 47."* (see the Office Action at page 4, numbered paragraph 7).

Reconsideration is requested in view of the arguments already given above. Gillice does not teach treated or untreated tiles having the characteristics recited in claim 45 from which claims 46 and 47 depend.

The Office Action also asserted that:

*"Finally, regarding the coefficients of friction recited in claims 39-42, it is the Examiner's position that the quarry tiles of Gillice necessarily possess the recited values, since the recited values are conventional for such flooring tiles having the same materials. The applicant discusses this aspect of such tiles in the instant specification at page 52, lines 11-15, for instance. Again, the Examiner notes that the present claims read on new, untreated tile."* (see the Office Action at page 4, numbered paragraph 7).

Reconsideration is requested. For at least the reasons already noted above, rejected claims 39-42 do not "read on new, untreated tile". Note in addition that rejected claim 40 recites a tile floor "wherein the floor surface has a coefficient of friction of about 0.9-1.0 when clean and dry". Applicants say at page 52, lines 11-12 and show in Table II at page 53 that the coefficient of friction for an untreated (unused) tile is 0.8-0.9 when clean and dry. Gillice's untreated tiles do not anticipate rejected claim 40. Note moreover that rejected claim 41 recites a tile floor "wherein the floor surface has a coefficient of friction of about 0.5-0.6 when wet". Applicants say at page 52, lines 11-12 and show in Table II at page 53 that the coefficient of friction for an untreated (unused) tile is 0.4-0.5 when wet. Gillice's untreated tiles do not anticipate rejected claim 41. Note also that rejected claim 42 recites a tile floor "wherein the floor surface has a coefficient of friction of about 0.3-0.5 when soiled and wet".

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Applicants say at page 52, lines 11-13 and show in Table II at page 53 that the coefficient of friction for an untreated (unused) tile is 0.2-0.3 when soiled and wet. Gillice's untreated tiles do not anticipate rejected claim 42.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, see MPEP §2131. Gillice does not describe a tile floor of rejected claims 38-42 or 45-47. Applicants accordingly request withdrawal of the 35 U.S.C. §102(b) rejection of claims 38-42 and 45-47 as being anticipated by Gillice.

**Rejection of Claims 38-42 and 45-47  
under 35 U.S.C §102(b) and Brown '627**

Claims 38-42 and 45-47 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,111,627 (Brown '627) "in view of applicant's admission", on grounds, *inter alia*, that:

*"Brown teaches quarry tile having a surface, which may be employed in a tile floor (figures 1-4; col. 5, lines 26-27; and col 8, lines 60-65, for instance). It is the Examiner's position that such tiles possess "small peaks and valleys," as presently claimed, since quarry tile, by their very nature, are not perfectly smooth. This relative phrase is not seen to distinguish over the quarry tiles of Brown.*

*"Regarding the phrase "substantially the same," with respect to the composition of the tile relative to the core, the Examiner notes that the word "substantially" is broad and applicant has failed to provide any definition of the scope of this term in the specification. Thus, it is the Examiner's position that the tiles of Brown have "an elemental composition substantially the same as that of the core of a new, untreated tile." Moreover, the Examiner notes that the present claims do not require any treatment of the claimed tiles and, therefore, read on untreated tiles. Clearly then, such tiles have an elemental composition as presently claimed." (see the Office Action at pages 4-5, numbered paragraph 8).*

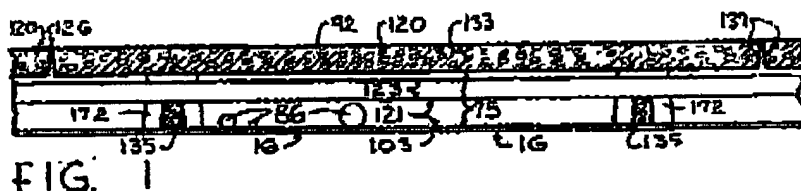
Reconsideration is requested. As noted above, the claims should not be evaluated by comparing *"the composition of the tile relative to the core"* and should not be evaluated by

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assessing whether the tiles in a reference have *"an elemental composition substantially the same as that of the core of a new, untreated tile."*

Brown '627 describes a flooring assembly in which an array of plates is suspended over an array of plinths (see e.g., plates 120 and plinths 178 as shown in Fig. 1, reproduced below):



Brown '627 does not discuss elemental compositions, let alone the elemental composition of the floor surface or in the core of a new, unused tile. As explained above, applicants' rejected claims 38-42 and 45-47 do not "read on untreated tiles". Assuming for the sake of argument that Brown '627's tiles are new, unused quarry tiles, the elemental composition at the tile surface and tile core would not be substantially the same (see e.g., applicants' specification at page 51, lines 4-18 and Table 1 at page 50).

The Office Action also asserted that:

*"With respect to claims 46 and 47, since the recited compositional ranges are merely descriptive of conventional quarry tile, such as those disclosed by Brown, it is the Examiner's position that Brown anticipates claims 46 and 47."*

...

*"The Examiner notes that the portion of the specification cited above is merely indicated to demonstrate inherent properties of quarry tiles, such as those taught by Brown."*

*"Because the tile of Brown is made of the components as Applicant claims, the claimed features would therefore be inherent (e.g. slip-resistant, COF, and floor surface). To claims 46-47 to the recited composition, because the same quarry tile is used, it inherently has the same elemental composition."* (see the Office Action at page 5, numbered paragraph 8).

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Reconsideration is requested in view of the arguments already given above. Brown '627 does not teach tiles having the characteristics recited in claim 45 from which claims 46 and 47 depend.

The Office Action also asserted that:

*"Finally, regarding the coefficients of friction recited in claims 39-42, it is the Examiner's position that the quarry tiles of Brown necessarily possess the recited values, since the recited values are conventional for quarry flooring tiles having the same materials. The applicant discusses this aspect of such tiles in the instant specification at page 52, lines 11- 15, for instance. Again, the Examiner notes that the present claims read on new, untreated tile." (see the Office Action at page 5, numbered paragraph 8).*

Reconsideration is requested for the reasons already noted above with respect to claims 39-42 and Gillice.

Brown '627 does not describe a tile floor of rejected claims 38-42 or 45-47.

Applicants accordingly request withdrawal of the 35 U.S.C. §102(b) rejection of claims 38-42 and 45-47 as being anticipated by Brown '627 "in view of applicant's admission".

**Rejection of Claims 38-42 and 45-47  
under 35 U.S.C §102(e) and Brown '786**

Claims 38-42 and 45-47 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 4,681,786 (Brown '786) "in view of applicant's admission", on grounds largely identical to those given with respect to Brown '627. In view of Brown's July 21, 1987 issue date, applicants question why this rejection was based on 35 U.S.C. §102(e) and not on §35 U.S.C. §102(b).

In any event Brown '786 involves an array of tiles set on a horizontal base surface (see e.g., tiles 10 and base surface 16 as shown in Fig. 2, reproduced below):



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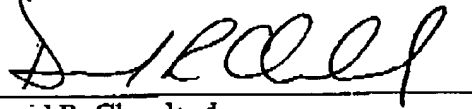
PAGE 24/27 \* RCVD AT 8/2/2005 4:40:38 PM (Eastern Daylight Time) \* SVR:USPTO-EFXRF-6/32 \* DNIS:2738300 \* CSID:612 331 7401 \* DURATION (mm-ss):07-04

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